

Clouds

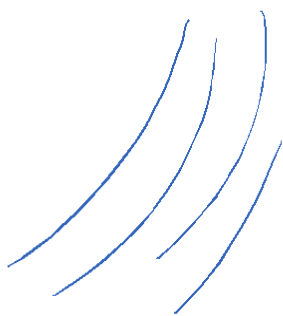
June 8, 2015 1:15 PM

How do clouds form?

- When air is cooled to its dewpoint (when air reaches saturation) - too much water vapour for that temp.
- the way air can be cooled is through lifting or nightfall.
- Since cooler air can hold less water vapour, the vapour will condense onto dust or salt particles (condensation nuclei) forming clouds or fog.

Types of Clouds:

- ① Cirrus - 6 km up; composed of ice crystals; thin, white, feathery appearance; usually fair weather however can indicate a warm front with eventual rain



- ② Nimbus - Latin word for rain;



nimbostratus, cumulonimbus
(rain cloud) (thunderclouds)

- ③ Cumulus - white fluffy cottonballs; show

(3) Cumulus - vertical motion or thermal uplift of air;



Condensation level at the flat bottom of cumulus clouds

- sometimes the tops are all the way to 18km, top of troposphere

(4) Stratus - Latin for layer or blanket; featureless, low, cover entire sky, gray, dull weather

Further Classification by Height of Cloud Base:

Cirrus → high clouds (base 6km or higher)
Alto → mid-level clouds (base 1.8km to 6km)
Strato → low clouds (base lower than 1.8km)
Nimbo → produces precipitation

examples → altocumulus, cirrostratus, cumulonimbus, nimbostratus, etc.

Weather map Symbols



cumulus



cumulus with more height



cumulonimbus

— stratus

— stratocumulus

— cirrus

— cirrus, denser

Cloud Picture ID

Cu, Ci, St, Nb

1	13	25
:	:	:
:	:	st/cu
:	:	ci/st
:	:	:
12	24	35